

1. (Currently Amended) A metal halide lamp comprised of a ceramic discharge chamber containing an ionizable fill, said fill comprising Hg, and halides (H) of Na, Tl, an alkaline earth metal, and ~~0~~ a rare earth element (RE) ~~<15% as a molar fraction of halides wherein a molar ratio percentage of TIH to the total number of moles of halide is from 2% to 5% and further wherein said molar ratio percentage for said rare earth halide is from > 0 to < 15%.~~

2. (Original) The metal halide lamp of claim 1 wherein said fill further comprises Cs halide.

3. (Currently Amended) The metal halide lamp of claim 2 comprising molar fraction of the halides in the following ranges:

%

REH	> 0-15
CsH	> 0-15
NaH	45-86
TIH	2-5
CaH	15-45

4. (Original) The lamp of claim 1 wherein said rare earth element is selected from Ho, Dy, Tm, and mixtures thereof.

5. (Original) The lamp of claim 4 wherein said rare earth element is Ho.

6. (Original) The lamp of claim 1 having a power greater than 200 watts.

7. (Original) The lamp of claim 1 having a power between about 250 and 400 watts.

8. (Original) The lamp of claim 4 wherein said ionizable fill includes only a single rare earth element.

9. (Original) The lamp of claim 1 having a color temperature between about 2500 and 4500°K.

10. (Original) The lamp of claim 9 having a color temperature between about 2800 and 3200°K.

11. (Currently Amended) ~~The lamp of claim 1 having an Ra greater than 80~~ A metal halide lamp comprised of a ceramic discharge chamber containing an ionizable fill, said fill comprising Hg and halides of NaI an alkaline earth metal and a rare earth element wherein a molar ratio percentage of said rare earth halide is from >0 to <15% and further wherein said lamp has a color rendering index of greater than 80.

12. (Original) The lamp of claim 1 wherein said halide is selected from chlorine, bromine, iodine and mixtures thereof.

13. (Original) The lamp of claim 1 wherein said alkaline earth metal comprises calcium.

14. (Original) The lamp of claim 1 having a molar ratio wherein:
 $2 \leq \text{NaH}/(\text{TIH} + \text{REH}_3) \leq 10$.

15. (Currently Amended) The lamp of claim 13 wherein:
 $15\% \leq \text{CaH}/\text{total moles CaH}/\text{total number of moles of halides} < 45\%$.

16. (Original) The lamp of claim 1 wherein:
 $0.85 < \text{power factor} < 0.90$.

17. (Currently Amended) The lamp of claim 1 wherein:
 $80 < V_{op} \text{ operating voltage} < 110$ volts vertical.
18. (Currently Amended) The lamp of claim 17 wherein:
 $90 < V_{op} \text{ operating voltage} < 120$ volts horizontal.
19. (Cancelled)
20. (Currently Amended) The lamp of claim 1 wherein:
 $4\% \leq REH \text{ moles REH/total number of moles of halide} \leq 8\%$.
21. (Currently Amended) The lamp of claim 1 wherein:
 $45\% \leq NaH \text{ moles NaH/total number of moles of halides} \leq 86\%$.

22. (Original) A metal halide lamp comprised of a ceramic discharge chamber containing an ionizable fill, said fill comprising mercury, and halides of sodium, thallium, an alkaline earth metal and $0\% < \text{at least 3 rare earth elements} < 15\%$.

23. (Currently Amended) A metal halide lamp comprised of a ceramic discharge chamber containing an ionizable fill, said fill comprising mercury, and halides (H) of sodium, thallium, an alkaline earth metal, at least one rare earth element and cesium wherein a molar ratio percentage of TIH to the total number of moles of halide is from 2% to 5%.

24. (Currently Amended) A dose for a metal halide lamp comprised of mercury, and halides (H) of sodium thallium, an alkaline earth metal, at least three rare earth elements, and cesium wherein said lamp has a color rendering index of greater than 80.

THE OFFICE ACTION

The following objections/rejections were noted in the Office Action.

Claims 1, 3, 17, 18, 23 and 24 were objected to as containing various informalities.

Claims 11, 15, 17, and 19-21 were rejected under 35 U.S.C. §112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter.

Claims 1-4, 8-10, 12, 14 and 21 were rejected under 35 U.S.C. §102(b) as being anticipated by U.S. Patent 5,698,948 to Caruso.

Claim 24 was rejected under 35 U.S.C. §102(b) as being anticipated by U.S. Patent 5,212,424 to Russell et al.

Claim 2 was rejected under 35 U.S.C. §103(a) as being unpatentable over Caruso in view of U.S. Patent 5,512,800 to Omura et al.

Claim 5 was rejected under 35 U.S.C. §103(a) as being unpatentable over Caruso in view of U.S. Patent 5,973,454 to Ooyama et al.

Claims 6, 7, 16-18 and 20 were rejected under 35 U.S.C. §103(a) as being unpatentable over Caruso.

Claim 13 was rejected under 35 U.S.C. §103(a) as being unpatentable over Caruso in view of U.S. patent 3,852,630 to Wesselink et al.

Claim 23 was rejected under 35 U.S.C. §103(a) as being upatentable over Russell in view of U.S. Patent 4,503,356 to Kobayashi et al.

Claims 3, 11, 15, 19 and 22 were indicated as containing allowable subject matter.

REMARKS

Various amendments were made to claims 1, 3, 11, 15, 17, 18, 19, 20, 21, 23 and 24 to address the Examiner's objections and 35 U.S.C. §112 rejections. Claims 1-18 and 20-24 remain pending in the application.

The recitation of claim 19 was incorporated into claim 1. The Examiner has previously indicated that claim 19 contained allowable subject matter.